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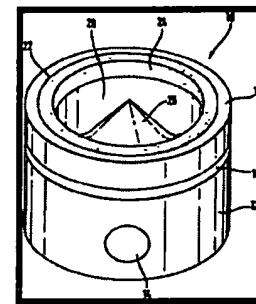
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Derwent Title: **Piston for IC engines with direct fuel injection has piston head cavity with collar partially formed by spray coating with a metal alloy for increased strength and temperature resistance**

Original Title: [DE19902864A1](#): Kolben für Brennkraftmaschinen mit Direkteinspritzung und Verfahren zu dessen Herstellung

Assignee: **DAIMLERCHRYSLER AG** Standard company
Other publications from [DAIMLERCHRYSLER AG \(DAIM\)...](#)



Inventor: **BREITSCHWERDT S; HEIGL R; PFEFFINGER H; ZOLT R;**

Accession/Update: **2000-467036 / 200041**

IPC Code: **F02F 3/14 ; F02F 3/26 ;**

Derwent Classes: **Q52;**

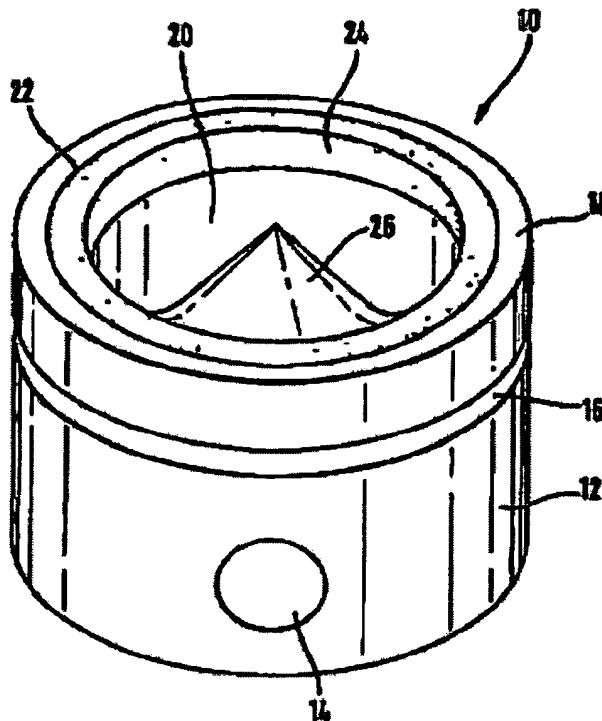
Derwent Abstract: **(DE19902864A) Novelty - The piston has a piston head (18) with a cavity (20), which has a collar (24) along its edge (22). The collar is at least partially formed by spray application of an additional material. This may be chosen from a group comprising of copper, cobalt, iron, nickel, aluminum, and aluminum-silicon alloys. Detailed Description - The main material of the cavity edge is heated to melting temperature to generate a melt bath, the additive is introduced into the melt bath, and the collar is formed in layers by melting-on.**

Use - IC engine with direct fuel injection.

Advantage - Piston head cavity has increased strength and temperature resistance, so that the piston can accept higher pressures and temperatures.

Images:

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Description of Drawing(s) - Figure shows piston.
piston head 18, cavity 20, edge 22, collar 24 Dwg.1/2

Family: [PDF Patent](#) Pub. Date Derwent Update Pages Language IPC Code

DE19902864A1 * 2000-06-29 200041 5 German F02F 3/14

Local appls.: DE1999001002864 Filed:1999-01-25 (99DE-1002864)

INPADOC [Show legal status actions](#)
Legal Status:

First Claim: [Show all claims](#)
1. Kolben für Brennkraftmaschinen mit Direkteinspritzung, mit einer im Kolbenboden (18) ausgebildeten Mulde (20), deren Rand (22) einen Kragen (24) aufweist, dadurch gekennzeichnet, daß der Kragen (24) zumindest teilweise mittels Strahlbeschichtung aus einem Zusatzwerkstoff (36) gebildet ist.

Priority Number:

	Application Number	Filed	Original Title
	DE1999001002864	1999-01-25	

Title Terms: PISTON IC ENGINE DIRECT FUEL INJECTION PISTON HEAD CAVITY COLLAR FORMING SPRAY COATING METAL ALLOY INCREASE STRENGTH TEMPERATURE RESISTANCE

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